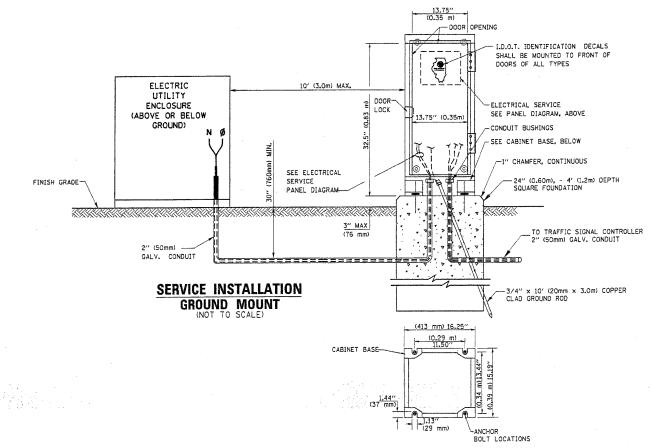


## ELECTRICAL SERVICE - PANEL DIAGRAM (TYPICAL FOR POLE AND GROUND MOUNTED SERVICE) SERVICE INSTALLATION POLE MOUNT (SHOWN)



CABINET - BASE BOLT PATTERN

NOTES:

- HANDHOLE COVER

DETAIL "A"

HANDHOLE COVER

HANDLE

DETAIL "B"

RECESSED COVER

DIRECT BURIAL

HEAVY DUTY COPPER COMPRESSION GROUNDING TERMINAL (TYPICAL)

GROUNDING CABLE

GROUND CABLES TO CONTROLLER

DOUBLE HANDHOLE

POST AS REQ'D.

- SEE DETAIL "8"

CAST CORNER FRAME WEB-

ANTI-CORROSION COMPOUND
SHALL BE APPLIED ON ALL
BOLT/ CONNECTION ASSEMBLIES.

-STAINLESS STEEL NUT AND 2 STAINLESS

SEE DETAIL "A" -

(2) 1/2"  $\times$  1 1/4" STAINLESS STEEL BOLT WITH SPLIT LOCK WASHER AND NYLON INSERT LOCKOUT WELDED TO  $\frac{1}{2}$ 

FRAME AND TO COVER, (TYPICAL)

CABLE HOOKS

REQUIRED, ALL HANDHOLES COMPRESSION CONNECTOR

ULLISTED GROUND-

UL LISTED GROUND COMPRESSION CONNECTOR — WITH STAINLESS STEEL NUT

(GREEN)

HANDHOLE COVER & FRAME - GROUNDING DETAIL

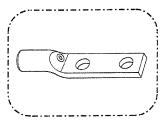
(NOT TO SCALE)

GROUNDING SYSTEM

1. THE GROUNDING SYSTEM SHALL CONSIST OF AN INSULATED CONDUCTOR
TYPE XLP, NO. 6 A.W.G., STRANDED COPPER TO BE INSTALLED IN
RACEWAYS. THE GROUNDING CABLE SHALL BE INSTALLED
IN A CONTINUOUS MANNER AS SHOWN ON THE CABLE PLAN PROVIDED.
ALL GROUNDING CONDUCTORS SHALL BE BONDED TO METAL ENCLOSURE
(HANDHOLE, POST, MAST ARM, CONTROLLER, ETC.). GROUND ROD SHALL BE
3,4" DIA. × 10"-0" (20mm × 3.0m) LONG, COPPER CLAD. ONE GROUND ROD
SHALL BE INSTALLED AT ALL POST FOUNDATIONS, POLE FOUNDATIONS,
CONTROLLER CABINET FOUNDATION AND ELECTRICAL SERVICE INSTALLATION
AS INDICATED ON THE CABLE PLAN. IF THERE ARE ANY SPECIAL CONDITIONS
SUCH AS SUB-SURFACE CONDITIONS OR INSTALLATION PROBLEMS, THE RESIDENT
ENGINEER SHALL BE NOTIFIED OR CONTACT THE BUREAU OF TRAFFIC,
ILLINOIS DEPARTMENT OF TRANSPORTATION DISTRICT ONE AT
(847) 705-4139.

 THE NEUTRAL CONDUCTOR AND THE GROUND CONDUCTOR SHALL BE CONNECTED IN THE SERVICE INSTALLATION. AT NO OTHER POINT IN THE TRAFFIC SIGNAL SYSTEM SHALL THE NEUTRAL AND GROUND CONDUCTORS BE CONNECTED.

- ALL EQUIPMENT GROUNDING CONDUCTORS SHALL TERMINATE AT THE GROUND BUS IN THE CONTROLLER CABINET.
- 4. THE CONTRACTOR SHALL PROVIDE A GROUND CABLE WITH CONNECTORS BETWEEN THE HANDHOLE COVER AND HANDHOLE FRAME.



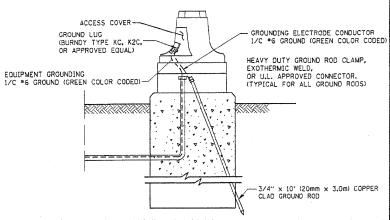
HEAVY-DUTY COMPRESSION TERMINAL (BURNDY TYPE YGHA OR APPROVED EQUAL)



3/4" (20mm) HEAVY-DUTY GROUND ROD CLAMP (BURNDY TYPE GRC OR APPROVED EUAL)

## NOTES:

• ALL CLAMPS SHALL BE BRONZE OR COPPER, UL APPROVED.
• GROUND CABLE SHALL BE LOOPED OVER HOOKS IN THE HANDHOLES
6.5' (2.0m) SLACK SHALL BE PROVIDED IN SINGLE HANDHOLES
13' (4.0m) OF SLACK SHALL BE PROVIDED IN DOUBLE HANDHOLES.
5' (1.4m) OF SLACK SHALL BE PROVIDED BETWEEN FRAME AND COVER.



MAST ARM POLE / POST-GROUNDING DETAIL

REVISIONS
NAME DATE

DISTRICT 1

STANDARD TRAFFIC SIGNAL

DESIGN DETAILS

SCALE: VERT.
HORIZ. NONE
HORIZ. NONE
DATE 1-01-02

DATE 1-01-02

SECULATE TO TRANSPORTATION

DISTRICT 1

DRAWN BY: RWP
DESIGNED BY: DAD
CHECKED BY: DAD
CHECKED BY: DAD
SHEET 3 07 4

FERN

(NOT TO SCALE)

FRAME AND COVER (PAID FOR SEPARATELY)

EXISTING HANDHOLE COVER & FRAME - GROUNDING DETAIL

(NOT TO SCALE)

∠EXISTING HANDHOLE